

tive, bibliographical references at the end of each chapter.

It is a pity that here and there Professor Hogben has allowed what to many will seem like prejudices, scientific and other, to colour his presentation. It will, for instance, be astonishing to most biologists to be told in the present year of grace that selection in nature is "merely destructive." Natural Selection, as R. A. Fisher has epigrammatically put it, is an agency for producing improbabilities. Its guidance is every bit as 'creative' as the mutations which are its raw materials. Similarly, some of his remarks about the sobering effect of palæontology's progress upon the phylogeny that thinks in terms of pedigrees will appear merely paradoxical.

With regard to matters more nearly connected with eugenics, there is no excuse for omitting, in his discussion of the apparent increase of mental defectives in this country during the last twenty-five years (p. 205), first, the facts about the percentages of low- and high-grade defectives which make it so difficult to believe that the increase is merely due to better ascertainment, and secondly the suggestion, made in the Report itself, that the increase, in so far as real, is due *not* to the differential fertility of defective-producing stocks, but to differential survival of defectives once born, owing to improved child welfare. Again, there is no excuse for the bias of his comments (p. 212) on a quotation from Major Darwin.

On positive eugenics, he reproduces the stock comments, first that we are not likely to agree as to what qualities are desirable, and secondly that even if we did, it would be dangerous to impose our valuation on future generations. He does this without, it appears, ever having reflected that there are certain qualities like intelligence, good physique, physical and mental energy, and special aptitudes, whose incidence everybody would agree it was desirable to increase.

On page 210, after quoting from Schuster, he adds a footnote saying: "Dr. Schuster is apparently entitled by heredity to dispense with grammatical conventions

which most of us have been accustomed by social environment to regard as indispensable," and then points out a trivial slip. I do not know what entitles Professor Hogben to descend to such rudeness: nor what entitles him to mis-spell biologists' names (such as Paynter for Painter), nor occasionally to write sentences which are sometimes extremely involved; but that footnote is a pity.

These, however, are minor blemishes. The fact remains that Professor Hogben has given us an important contribution to human biology, and one which it will be extremely salutary for eugenicists to read. Every time they are tempted to feel annoyed during its perusal, let them remember that sagacious dictum of the new psychology, that the more violently we hold a belief, the less, usually, will be the scientific justification for it. At least they will agree heartily on one point—that more and better research is the most urgent need of his and our subject.

J. S. HUXLEY.

THE FALL OF ROME

Milner, Gamaliel, M.A. *The Problem of Decadence.* London. 1931. Williams and Norgate. Pp. 228. Price 6s.

THE problem which Mr. Milner sets himself to examine, and, if possible, to solve is stated comprehensively in the opening sentence of his book. "Why do nations and civilizations decay? History which nowadays declares itself scientific ought, it would seem, to have some answer to this question." Accordingly Mr. Milner proceeds to consider the question by the light of history and "instead of speculating at large on the subject," selects the most typical and striking instance of the collapse of a civilization, the decline and fall of the Roman Empire, and subjects it to systematic study and analysis.

His exposition will be read by students of eugenics with the most lively interest, not because he approaches his subject from the eugenic standpoint but rather, paradoxical

as it may seem, because he does not. For the problem does not come into the domain of eugenic inquiry until it has been ascertained that the phenomena cannot be explained by local or environmental conditions. To the complete elucidation of the causes of the catastrophe, a thorough examination by a competent historical investigator is at least an indispensable preliminary. And this is what the present book supplies. The author is in all respects admirably qualified for his task, for he brings to it not only a wide and intimate knowledge of ancient and mediæval history, but a very evident temperamental fitness for an analytical study of this kind. He has no preconceived opinions or prejudices, no doctrinal or theoretical axe to grind. His aim is to discover some cause adequate to account for the observed phenomena and he pursues his quest in a spirit of genuinely scientific impartiality.

The method employed is that of exclusion. One by one, the explanations suggested by previous writers and investigators are examined and compared with the ascertained facts; and as each is weighed in the balance of critical inquiry and found wanting in the conclusiveness that is sought, it is dismissed to give place to the next. Vice and Luxury, Christianity, Despotism, Bureaucracy, Taxation, the Dole, Slavery, and the various other conditions which have from time to time been pointed to by historians as the factors of the decay of Roman civilization are examined in turn, with the result that none of them is found to present the appearance of a cause proportionate to the effects. While each may have contributed as an unfavourable influence, they appear rather as by-products of a change the causation of which is deeper and more general. It is only when he comes to the consideration of the birth rate that the author isolates a factor of decadence that seems to correspond with the hypothetical cause postulated in the opening paragraph of the book. There he observes: "Reasons more or less cogent have been given for these phenomena, but the suspicion haunts the mind that some

general law, some principle of growth or decay, lurks undiscovered, and that what historians take for causes are often mere symptoms of subtle forces at work." But in the chapter which we are considering such a principle seems to emerge; for whereas Mr. Milner is sceptical as to the alleged effects of a general decline in the population, he is quite clear as to the consequences of a selective birth rate. Having remarked (p. 95) that "Among the highest families, where economic motives can have had no weight, childlessness or a small family seems to have been the rule," he concludes (p. 100): "This is probably one reason why all civilizations tend in the long run to decay; the differential birth rate, the multiplication of the unfit, generates toxins in the body politic which in the end prove fatal."

It is, perhaps, a little singular that, having brought into view a principle of racial decay of such potency, Mr. Milner does not pursue the subject rather more exhaustively. It is hardly possible to doubt that a differential birth rate, progressively lowering the mental and physical quality of the population, must in the end destroy a civilization in which it occurs. But is it clear that a well-marked differential birth rate coincided with the decline of Roman civilization? This is a question of fact and its proof or disproof lies within the province of the historical investigator. One feels that the evidence might have been considered more minutely and at greater length.

As the book proceeds the reader is sensible of a certain change in the character of the matter. The specific inquiry retires into the background to some extent and purely historical episodes are treated in greater detail; and the book ends without any categorical answer to the question with which it opened, excepting the one which has been quoted. Nevertheless, the reader will not complain, for these later chapters, with occasional pleasant digressions, are full of interest and abound in acute and illuminating comments on the past, the present, and even the future. For in Chapter XV, "The Modern Parallel," a detailed, though

admittedly speculative, comparison is made between the declining civilization of the ancient world and that of our own times. It is profoundly interesting though by no means cheerful reading, and its tendency to make our flesh creep is not diminished by the absence of extravagance, by the obvious reasonableness of the comparison and its agreement with the "signs of the times" that are manifest to every competent observer. Indeed, the terrifying picture of what the world may be like in the later half of the present century is calculated to make the more mature among us reflect with satisfaction on the comparative brevity of human life.

Space does not permit of detailed comment on the variety of matter dealt with in the seventeen chapters. We can only congratulate the author on having produced, in surprisingly small compass, a really weighty and important book which makes a valuable contribution to our knowledge of a subject of first-rate interest to us all. And the manner is as good as the matter. The writing is not only scholarly and lucid; it flows on easily and pleasantly with vivid and humorous touches that hold the reader's attention and materially help the process of exposition.

R. AUSTIN FREEMAN.

FERTILITY

Velde, Dr. Th. H. Van de. *Fertility and Sterility in Marriage*. London, 1931. Heinemann. Pp. 448. Price 25s.

It is the opinion of the reviewer that Dr. Van de Velde is correct in his contention that he has delved "into the quarry of human knowledge and has not passed lightly over its surface," and yet so enormous is the whole subject that to cover it in four hundred pages necessitates a considerable degree of simplification. The specialist still awaits the advent of a monograph upon each of the many aspects, but his waiting is made less tedious by the knowledge that a volume is now available which contains a really good survey of the

general details. This contribution only makes it still more evident that until the whole subject is minutely covered little real progress can be made; the author nevertheless, has done well, certainly placing much valuable information at the disposal of students of this subject, and taking us further along the road than any other.

One of the first points which is dealt with is the relationship between marriage and reproduction. This matter has given rise to a very great amount of controversy, which would seem to be rather pointless. One can only accept the fact that these two are not synonymous, and that either by natural or by artificial means a sterility is often induced, and that children, or at least a superabundance of them, do not always result from marriage.

Most will agree with the author when he states that religion is of importance for individual happiness; and yet the general attitude taken up by those who are most opposed to the discussion of these subjects is that these matters and religion are antagonistic. The views of those who allow coitus to take place at a time when pregnancy is unlikely to occur or who definitely veto sexual intercourse, are likewise dealt with, and it is pointed out that these are in themselves contraceptive measures, and if contraception is a sin, then even these methods are sinful.

These matters occupy the introduction, and the second chapter is devoted to the national, international, and racial aspects of family limitation.

The question as to whether family limitation should or should not take place, is next dealt with—a matter which all writers appear to consider the essential problem of birth control. The reviewer would submit that it is the least of the problems, for we cannot but accept the fact that woman has attempted to exercise a control over her fertility for the last 4,000 years and will probably continue to do so regardless of the arguments for and against. It is our duty, however, to study the methods which are employed and to differentiate between those which are likely to be successful and harm-